



# *The Commonwealth of Massachusetts*

*Executive Office of Environmental Affairs 5/13/97 JH*

*100 Cambridge Street, Boston, 02202*

**FILE COPY**

May 12, 1997

(W/C)

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## CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS ON THE ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : American National Power -  
Bellingham Power Project  
PROJECT LOCATION : Bellingham  
EOEA NUMBER : 11101  
PROJECT PROPONENT : American National Power, Inc.  
DATE NOTICED IN MONITOR : April 10, 1997

Pursuant to the Massachusetts Environmental Policy Act (M.G.L. c.30, ss.61-62H) and Sections 11.04 and 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that the above project requires the preparation of an Environmental Impact Report (EIR).

### Project Description

As presented in the Environmental Notification Form (ENF), the project consists of the construction of a 590 megawatt (MW) natural gas-fired combined cycle power plant on 125 acres of land located off Maple Street (and abutting Interstate 495, just south of the Route 126 interchange) in Bellingham. Access to the site will be from Maple Street, although the exact location has not yet been determined. Access to Maple Street will be from Hartford Avenue (or numbered Route 126, which is not a state highway at that location). The total area to be developed is approximately 25 acres; the remaining 100 acres (half of which are wetlands which border the Charles River to the west and an unnamed brook to the southeast) will be left as open space and/or donated to the Town for use as recreational fields.

The plant will be fueled primarily by natural gas, supplied through an Algonquin Gas Transmission pipeline located approximately one mile to the north.<sup>1</sup> The northern portion of

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<sup>1</sup> - The ENF states that "Algonquin will likely be responsible for permitting, owning and operating the interconnection to the proposed facility." However, I am requiring that the cumulative environmental impacts (and in particular the crossing of the

the site is crossed by a New England Power 345 kV transmission line that will be utilized to connect the power plant to the regional power grid.<sup>2</sup> Although the quantity has not yet been determined, there will be a need for storage of low sulfur (0.05%) distillate oil on site in the event of a disruption of gas service; similar projects have needed approximately one million gallons. It is expected that the Department of Environmental Protection (DEP) Air Quality Permit will stipulate that the oil may not be used for more than 30 days (720 hours) per year. The facility will be designed to meet Lowest Achievable Emission Rate (LAER) and Best Available Control Technology (BACT) standards, including use of Selective Catalytic Reduction (SCR).

The power plant will utilize dry cooling technology to minimize water usage. However, the plant is still expected to have peak water demands of 1 million gallons per day (MGD) and utilize on average at least 50,000 gallons per day (gpd). Currently, the primary source of water is proposed to be the Town's municipal system; however, there is a possibility that on site wells will be developed. Several commenters have noted the Town's current water supply and distribution problems (including seasonal water bans). Therefore, the EIR must examine closely the impacts of water withdrawal on the municipal system as well as the larger impacts on the Charles River and the overall hydrology of the area.<sup>3</sup>

Sanitary waste is proposed to be treated on site with a conventional Title 5 subsurface disposal system. According to the ENF, approximately 200,000 gpd of process water will be sent

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Charles River) associated with the construction of the pipeline be included in the EIR for this project.

<sup>2</sup> - Any upgrades and associated environmental impacts must be addressed in the EIR.

<sup>3</sup> - I also understand that the Town is considering a third power project in Town (one power plant is already operating). If this is the case, the cumulative impacts must be considered now.

to the Charles River Pollution Control District<sup>4</sup> facility in Medway. Non-contact storm water will be treated and infiltrated on site.

### Categorical Inclusion

The project is categorically included for the preparation of an Environmental Impact Report (EIR) pursuant to 301 CMR 11.25 (25) in that the new power plant will be capable of generating in excess of 100 MW of electricity.

### Jurisdiction

The project will require numerous local, state and federal approvals. Federal approvals or notices will be required from the Federal Aviation Administration (FAA), Army Corps of Engineers (ACOE), the US Fish and Wildlife Service (USFWS), the US Environmental Protection Agency (EPA) and the Federal Energy Regulatory Commission (FERC) through the Energy Facilities Siting Board (EFSB). Massachusetts Department of Environmental Protection (DEP) approvals will be required for air emissions, industrial waste water, and 401 Water Quality Certification. The project must also comply with the Massachusetts Wetlands Protection Act and the conditions of the National Pollutant Discharge Elimination System (NPDES) General Permit for construction activities. Although direct access to Route 495 is not proposed, the property abuts the State Highway; therefore, a Massachusetts Highway Department (MHD) Highway Access Permit will be required. Massachusetts Historical Commission (MHC) review is required as is Department of Public Safety and State Fire Marshall approval for oil storage.

Since the EFSB has broad jurisdiction, including socioeconomic impact analysis and quality of life issues, I have included environmental impact issues in the Scope for which specific state permits are not required (such as tree removal,

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<sup>4</sup> - Recently the Charles River Pollution Control District submitted an ENF for various upgrades to the facility and an expansion of the facility from 4.54 MGD to 5.7 MGD. The flow from the power plant alone will consume approximately 18 percent of the proposed expansion. Therefore, the EIR must include a discussion of water conservation and recycling efforts to be utilized at the plant.

noise and visual impacts). These issues will need to be addressed in the EFSB process and are pertinent to the MEPA analysis; therefore, they should be addressed in the DEIR.

### SCOPE

#### General

The EIR should follow the MEPA regulations at 301 CMR 11.07, as modified by this scope, for outline and content. The EIR must include a copy of the Certificate and copies of the attached comments, which must be addressed as they relate to this Scope. I specifically refer the proponent to 301 CMR 11.07 (2)(c) which requires that EIR to identify all federal and state permits and approvals sought for the project with their current status, and 301 CMR 11.07 (6) which requires the EIR to demonstrate how regulatory standards will be met.

#### Description of the Project

The EIR should present a site plan and an illustration of the project's overall appearance. The site plan should include proposed lighting, vegetative plantings and natural screening (the text should indicate if any additional physical buffer will be necessary to prevent inadvertent lighting and noise impacts on nearby residences) and all components of the proposed drainage system.

#### Needs and Alternatives Analysis

The EIR should briefly address the need for the proposed generating capacity and alternative ways to meet such need, consistent with EFSB requirements.<sup>5</sup>

The site selection review process referred to in the ENF should be summarized in the EIR. The purpose of the alternative

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<sup>5</sup> - This is not to say that any formal determination will be made under MEPA regarding need. To the extent this information must be developed anyway, however, it should be included in the context of consistency with applicable state regulations, policies and plans.

analysis is to consider what effects changing the parameters and siting of the project would have on the environment, keeping in mind that the objective of the MEPA review process is to minimize damage to the environment to the greatest extent feasible.

#### State Highway Access

Although the facility is likely to generate minimal traffic once operational, the EIR must include a synopsis of the vehicle trips (including all truck traffic) that will be generated both during and after construction. The analysis should include an estimate of the traffic to be generated over time (i.e. intensity of traffic during various stages of construction). The analysis should include a truck routing plan and indicate what, if any, improvements will be necessary to Maple Street.

#### Visual/Aesthetic Impact

The EIR must include a discussion of how the facility will fit into the visual context of its environmental setting and how aesthetic or viewshed impacts will be minimized.

#### Air Quality

An evaluation of ambient air quality (including noise), meteorology, plant emissions, dispersion, and mitigation measures should be provided. The scope of this effort should be reviewed by the DEP to assure that the data required for its review are provided, if possible, in the EIR. I note that these analyses must consider the cumulative impacts of this facility combined with other generators within a predetermined radius.

An electric and magnetic field (EMF) monitoring plan should be established that, at a minimum, includes the following:

\* Baseline monitoring of magnetic field strengths should be conducted along the New England Power easement corridor within a half-mile radius of the project site.<sup>6</sup>

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<sup>6</sup> - The monitoring program must comply with The Institute of Electrical and Electronics Engineers (IEEE) standards and specifications for magnetic field monitoring.

\* Results should be recorded on strip charts and be accompanied by field notes identifying locations, potential sources of anomalies, and conditions of use.

\* From the baseline data, the additional EMF expected to be produced by the addition of power to the existing overhead lines must be calculated. If through electrical phasing and/or other mitigative measures it is not possible to keep EMF levels at or below preconstruction levels, the EIR must contain a discussion concerning health effects of EMF and, more importantly, how to mitigate such impacts.

### Wetlands

Depending on the route chosen, the access road from Maple Street as well as the gas pipeline interconnect will result in the alteration of some amount of bordering vegetated wetland. Any wetland resource areas and associated buffer zones within 200 feet of any proposed development should be clearly identified on a plan at a scale of not greater than 1" = 100'. The wetlands that have been delineated in the field should be surveyed, mapped and shown on the plans indicating easily identifiable bench marks in the field. Each wetland resource area should be characterized according to M.G.L. c. 131, s. 40, identified on the plan and described in the EIR text. The EIR must address the significance of the resource values of each wetland area including: riverfront areas, public and private water supplies, flood control, storm damage prevention, prevention of pollution and protection of fisheries and wildlife habitat. The text should explain whether the Bellingham Conservation Commission has accepted the boundaries and identify any disputed areas. Proposed activities, including construction mitigation, erosion and sedimentation control, phased construction, proposed crossing plans and direct or indirect drainage (i.e. overland flow) into wetland areas must be evaluated.

The Commonwealth has endorsed a policy that seeks avoidance of wetlands alteration to the maximum extent possible. Therefore, every effort should be made to find an alternative to the proposed access road location that avoids or reduces wetland impact. Where wetland impacts are unavoidable, the EIR must propose mitigation measures to protect the resource areas and minimize short and long term impacts to the greatest extent possible.

Applicable federal permitting should be discussed as well as

any local wetland by-laws and/or protection zones.

### Wetlands Replication

For any amount of required wetlands replication/restoration, a detailed wetlands replication and or restoration plan must be included in the EIR. At a minimum the plans should include: replication location(s) delineated on plans at a scale no greater than 1"=100', elevations, typical cross sections, test pits or soil boring logs, groundwater elevations, hydrology of areas to be altered and replicated; proposed wetland replication species, planned construction sequence; and a discussion of how compliance with applicable performance standards will be achieved and monitored.

### Drainage/Stormwater Runoff

The EIR should provide a complete drainage analysis to show the changes in runoff quality and quantity between pre- and post-development. The information in the report should include: a soils map of the site, existing and proposed watershed maps, and pre- and post-development runoff peaks for the 2, 10 and 100 year storm events. Associated data and computation sheets should be available in a technical appendix. The report should also briefly explain the model(s) used in the calculations, provide the input parameters, RCN, Tc, and Tt values, and the computations for detention/retention basin sizing.

Characterization of the flows, based on nutrient, sediment, and contaminant loadings, should be predicted for stormwater discharges, overland runoff and any point source releases. The expected level of contaminant attenuation and the water quality of the discharge from the detention basins should be predicted.

The report should explain the objectives of the drainage system design. A schematic drainage design concept plan should be provided for the proposed drainage system and for the drainage system that will be used during construction to control erosion and sedimentation. These plans should, at a minimum, show the approximate locations of the project components, the proposed drainage design features, wetland resource areas and existing vegetation proposed to be removed. The EIR should demonstrate that the proposed drainage system meets best management practices for the discharge area, and in particular for on and off-site wetlands resource areas. Long-term impacts on wetland hydrology

and vegetation should be avoided. The maintenance requirements to ensure efficiency of the drainage system should be explained and commitments should be made to ensure that the maintenance requirements will be adhered to in the future. I note that for any construction project that will disturb in excess of-five acres, the EPA General Permit (NPDES) for stormwater requires that a Notice of Intent to commence construction must be filed with the US EPA at least one day prior to construction and a Pollution Prevention Plan must be available on site at all times.

The "Stormwater Prevention Plan" and the "Spill Prevention Control and Containment Plan" (or "Emergency Response Plan") should be included in appendices to the report.

#### Water and Wastewater

The proponent must identify the quantity and sources of water to serve the project as well as its plans for wastewater disposal. Since the water and wastewater infrastructure will need to be upgraded, the associated environmental impacts of these new lines (and of the new gas pipeline connection and electrical distribution lines) must be identified. Should on-site wells be proposed, a hydrogeological analysis that demonstrates sufficient supply without adverse impacts to other water resources must be included in the report.

The EIR must examine closely the impacts of water withdrawal on the municipal system as well as the larger impacts on the Charles River and the overall hydrology of the area.

The proponent is advised to work closely with DEP's Water Management Act office and the Charles River Watershed Basin Team contact person to make sure the EIR properly addresses these concerns.

#### Archaeological Resources

The Massachusetts Historical Commission has found that the project area is likely to contain significant historic and archaeological resources. Therefore, a reconnaissance level archaeological survey (950 CMR 70) must be conducted for the project site. Summary results of the survey, which do not reveal confidential site locational information, must be provided in the DEIR.

Construction Impacts

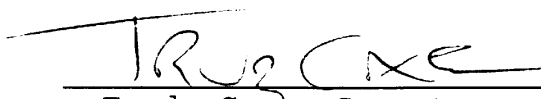
The EIR must evaluate construction impacts, including erosion and sedimentation impacts, loss of vegetation and impacts on wildlife habitat. The objective of the analysis should be to identify construction scheduling and mitigation measures that can minimize adverse impacts and optimize site recovery.

EIR Distribution

Distribute the EIR as required by the MEPA regulations at 301 CMR 11.24 and to all those listed below. In addition, two copies should be available at each of the following locations in Bellingham: Planning Department, Conservation Commission, Town Clerk, and the Bellingham Public Library.

May 12, 1997

Date

  
Trudy Cox, Secretary

## Comments received :

Bellingham Planning Board (4/17/97)  
Bellingham Conservation Commission (4/24/97)  
Charles River Watershed Association (4/25/97)  
Massachusetts Highway Department (4/30/97)  
Massachusetts Historical Commission (5/1/97)  
Leigh E. Fisher (5/1/97)  
Metropolitan Area Planning Council (5/1/97)  
DEP-CERO; Attn: Mary Richards (5/2/97)  
US Dept. of the Interior - Fish and Wildlife Service (5/9/97)

cc: DEP-NERO; Attn: Rachel Freed -  
Charles River Watershed Team Leader

TC/DEV/dv